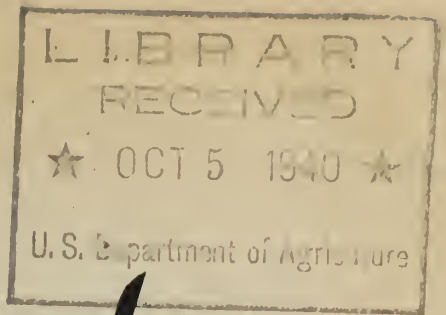


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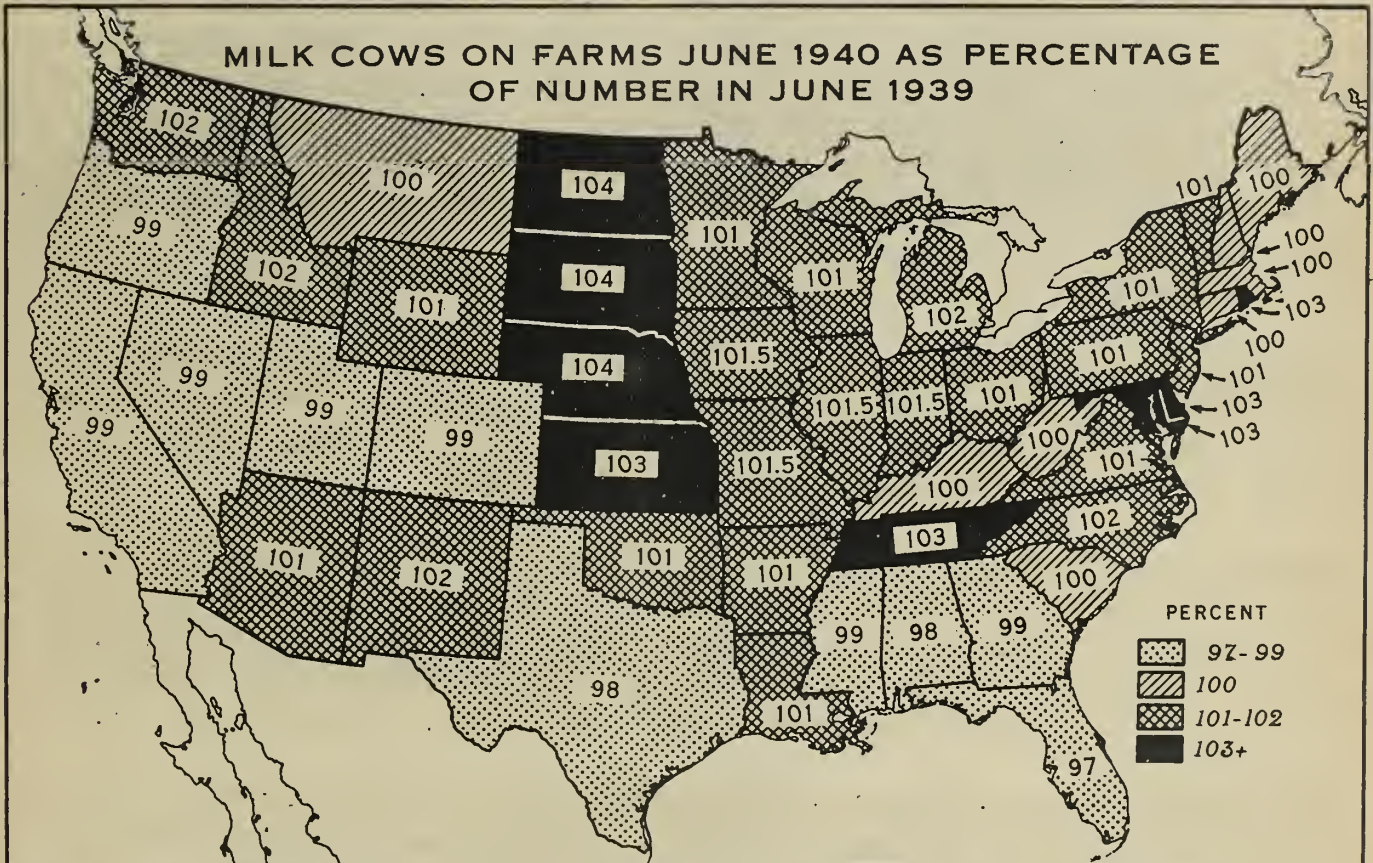
# Dairy Production

Issued Monthly by  
AGRICULTURAL MARKETING SERVICE  
UNITED STATES DEPARTMENT OF AGRICULTURE

No. 4

AMS.

AUGUST 15, 1940



U. S. DEPARTMENT OF AGRICULTURE

NEG. 276 AGRICULTURAL MARKETING SERVICE

The June livestock survey shows that in most States the number of milk cows on farms changed only slightly during the preceding 12 months. Increases exceeded 2 percent chiefly in States where numbers were still less than 80 percent of what they were prior to the 1934 drought. In the country as a whole there was an increase of 1 percent.



## DAIRY PRODUCTION SUMMARY

After reaching the highest point on record in June, milk production in the United States declined more rapidly than usual during July as hot weather dried pastures in the North Central States the latter part of the month, the Agricultural Marketing Service reports. By August 1, daily milk production was probably only slightly higher than on the same date last year, for although the number of milk cows on farms is estimated to be 1 percent higher, reports on milk production per cow averaged nearly 1 percent lower.

Milk production during July is estimated to have been 1-1/2 percent larger than in July last year. Production was much above last year in the North Atlantic group of States and much below last year in the South Central States. Production per capita during July is estimated at less than 1 percent higher than in July last year but between 2 and 3 percent above the July average during the preceding 5 years.

Production of the principal manufactured dairy products continued high in July. Creamery butter production is estimated at 1.6 percent above production in July last year, and only about 1 percent below the previous high record for the month. American cheese production was nearly 12 percent above production in July last year. It was nearly 4 percent over the previous high for the month and more than 50 percent above the July production that was considered normal 10 years ago. The milk equivalent of creamery butter, cheese, condensed and evaporated milk manufactured in July is estimated to have been about 5 percent higher than in July of last year and about 1 percent higher than in July 1938. During May the production of these products was lower than in May 1938 but, with this exception, production since the first of the year has been continuously above previous records for the same month. This high production appears to reflect various demand factors, including the increase in population, increases in the per capita consumption of cheese and evaporated milk, the further substitution of creamery butter for farm butter, and the effect of the war on exports and imports of dairy products.

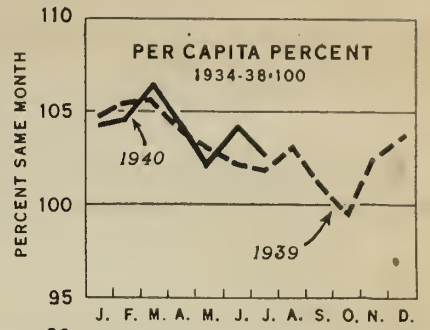
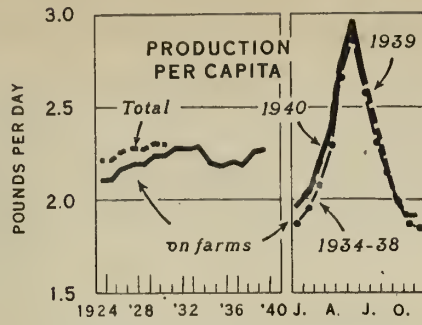
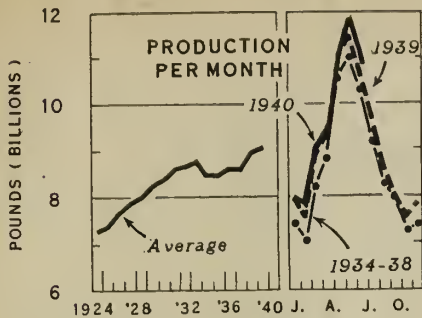
Stocks of principal dairy products increased more rapidly than usual during July but on August 1 they were still moderate. Excluding Government holdings of butter, they totaled about the same as on August 1 last year. They include rather light stocks of butter but record holdings of cheese.

Prices of dairy products continue steady and show about the trend expected in a season not seriously affected by drought. In July, farmers received nearly 18 percent more for butterfat and 8 percent more for milk than in the same month of last year. Prices in early August appear equally favorable. Prices of dairy products are now fairly high compared with some feeds. Other feeds are still high.

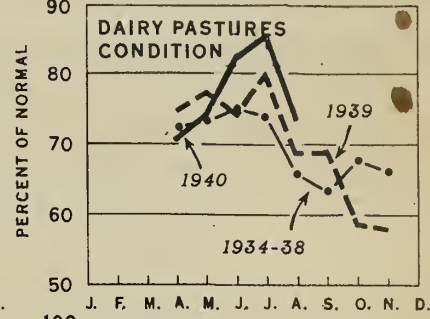
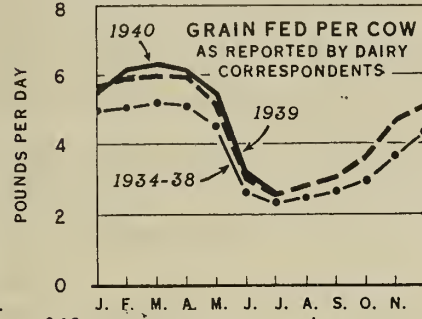
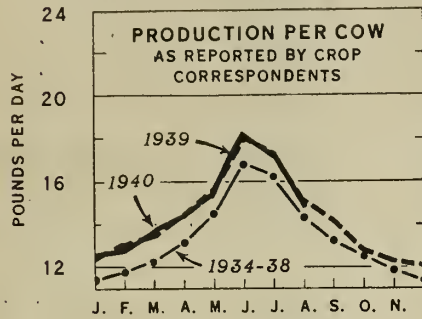
The quantity of grain and concentrates reported by dairymen as fed to their cows on August 1 was above average in nearly all areas. A continuation of this heavy feeding is dependent, of course, on favorable price relations and on the quantity of feed available in pastures. But with commercial dairymen providing supplementary feed where it is needed to maintain production, and even feeding liberally in some areas where pastures are good, it is evident that prices are high enough to give support to a rather high level of milk production in the principal commercial areas. In parts of the South and West, however, there are signs that the high price of beef cattle as compared with butterfat is tending to restrict expansion of dairying.

# DAIRY PRODUCTION: GRAPHIC SUMMARY FOR THE UNITED STATES

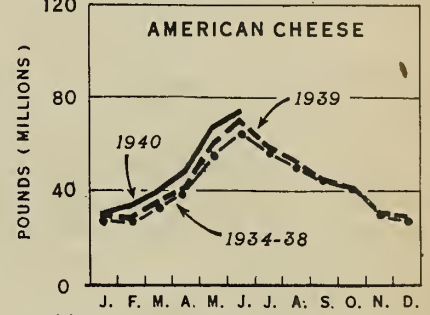
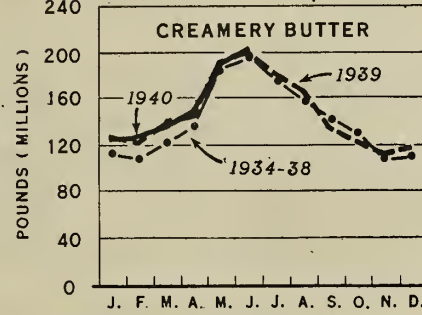
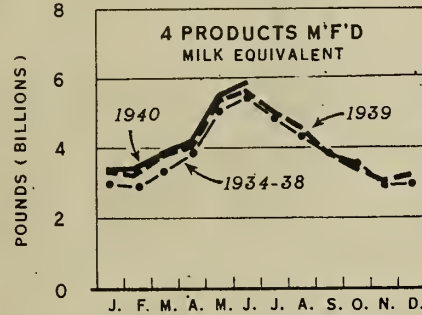
## MILK PRODUCTION ON FARMS



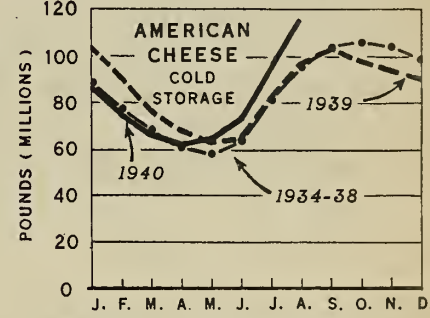
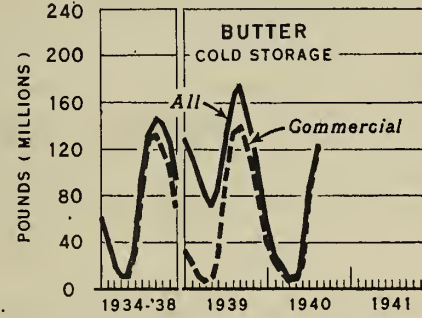
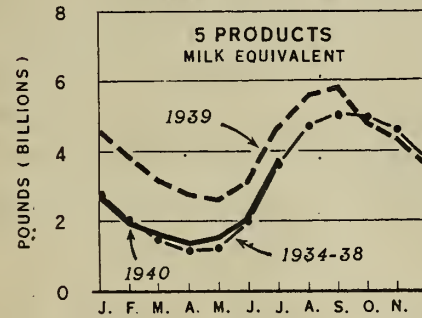
## MILK PRODUCTION FACTORS



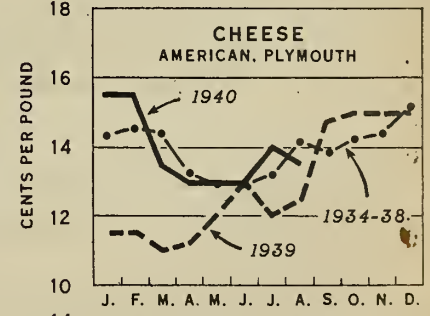
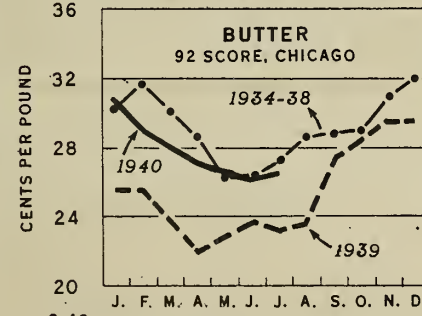
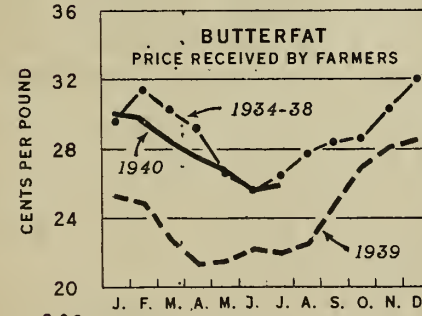
## DAIRY PRODUCTS MANUFACTURED



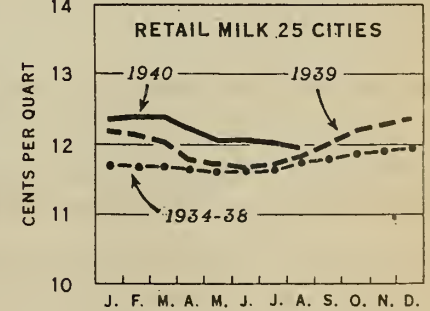
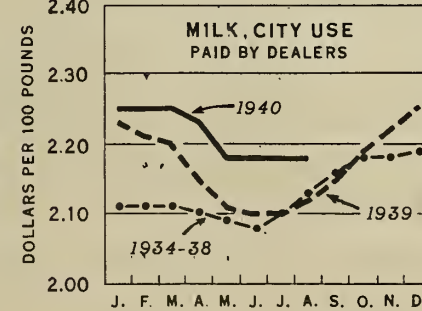
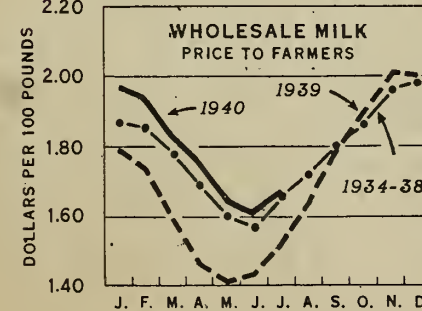
## STOCKS



## PRICES



## PRICE OF MILK





UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

Dairy Production

August 15, 1940

SUMMARY OF DAIRY STATISTICS FOR THE UNITED STATES

				Average:		1940	
				1934-38:	1939	Total	Percent
				:	:	or avg.	of 1939
<b>MILK PRODUCTION ON FARMS</b>							
Total, per month..... mil.lbs.	May	:10,537	:11,084	:11,067a/	: 99.8		
	June	:10,996	:11,464	:11,805a/	:103.0		
	July	:10,266	:10,671	:10,834a/	:101.5		
Per capita, daily average..... lbs.	June	: 2.855	: 2.914	: 2.979a/	:102.2		
	July	: 2.578	: 2.623	: 2.644a/	:100.8		
Per cow, per day..... lbs.	June 1	: 16.78	: 17.98	: 18.03	:100.3		
(As reported by crop correspondents)	July 1	: 16.24	: 17.27	: 17.43	:100.9		
	Aug. 1	: 14.27	: 15.10	: 14.98	: 99.2		
<b>DAIRY PASTURES: Condition, % of normal</b>							
pct.	July 1	: 73.9	: 79.8	: 85.5	:107.1		
	Aug. 1	: 65.7	: 68.7	: 73.5	:107.0		
<b>PRODUCTION OF MANUFACTURED DAIRY PRODUCTS</b>							
Creamery butter, monthly..... mil.lbs.	June	:195.3	:199.6b/	:203.8b/	:102.1		
	July	:174.5	:180.1b/	:183.0ad/	:101.6		
weekly..... week ending	Aug. 1	: ---	: ---	: ---	: 97.4		
	Aug. 8	: ---	: ---	: ---	: 96.4		
American cheese..... mil.lbs.	June	: 63.8	: 70.0b/	: 74.1b/	:105.9		
	July	: 55.8	: 61.2b/	: 68.4ad/	:111.8		
Evaporated milk, case..... mil.lbs.	May	:237.2	:268.5a/	:282.0a/	:105.0		
	June	:249.6	:267.5a/	:294.2a/	:110.0		
4 products, milk equivalent..... mil.lbs.	May	: 5,092	:5,419	:5,461	:100.8		
(Creamery butter x 21, all cheese except skim	June	: 5,469	:5,656	:5,865	:103.7		
x 10, canned cond. & evap. milk x 2.2)	July	: 4,827	:5,030	: ---	:104.7c/		
<b>STOCKS ON HAND</b>							
Butter in cold storage..... mil.lbs.	July 1	: 89.0	:131.6	: 81.0	: 61.6		
(Including government holdings)	Aug. 1	:131.8	:165.2	:124.2a/	: 75.2		
Commercial holdings, only.....	Aug. 1	:127.9	:132.8	:123.4a/	: 92.9		
American cheese..... mil.lbs.	July 1	: 80.7	: 81.3	: 96.1	:118.2		
(Cold storage holdings)	Aug. 1	: 95.0	: 97.4	:116.0a/	:119.1		
Evaporated milk, case..... mil.lbs.	June 1	:195.4	:209.0	:287.8	:137.7		
(Manufacturers' stocks)	July 1	:256.0	:292.4	:288.6	: 98.7		
5 products, milk equivalent..... mil lbs.	June 1	:1,982	:3,158	:2,188	: 69.3		
(Butter, all cheese, canned cond. & evap.	July 1	:3,622	:4,629	:3,739	: 80.8		
milk plus cream in cold storage)	Aug. 1	:4,682	:5,585	:4,933cd/	: 88.3		
<b>PRICES</b>							
Butterfat, per pound..... cts.	June 15	: 25.6	: 22.2	: 25.6	:115.3		
(Prices received by farmers)	July 15	: 26.5	: 22.0	: 25.9	:117.7		
Butter, wholesale, per pound..... cts.	July	: 27.4	: 23.2	: 26.5	:114.2		
(92 score, Chicago)	Aug.	: 28.6	: 23.5	: 27.0e/	:114.9		
American cheese, wholesale, per pound..... cts.	July 15	: 13.25	: 12.00	: 14.00	:116.7		
(Twins, Plymouth, Wisconsin)	Aug. 15	: 14.20	: 12.50	: 13.50	:108.0		
Milk, wholesale, per 100 pounds..... dol.	June 15	: 1.57	: 1.45	: 1.62b/	:111.7		
(All purposes, prices received by farmers)	July 15	: 1.66	: 1.54	: 1.67a/	:108.4		
Milk for city distribution, per 100 pounds.... dol.	July	: 2.10	: 2.10	: 2.18	:103.8		
(Prices paid by dealers, 3.5% basis)	Aug.	: 2.13	: 2.12	: 2.18	:102.8		
Milk, retail, delivered, per quart..... cts.	July	: 11.63	: 11.72	: 12.02	:102.6		
(Average, 25 markets)	Aug.	: 11.75	: 11.85	: 11.98a/	:101.1		

a/ Preliminary. b/ Preliminary revision. c/ Forecast or interpolation.

d/ Not available when accompanying chart was prepared. e/ Price August 14.



Milk production in the United States in July is estimated at 10.8 billion pounds as compared with 10.7 billion pounds in July a year ago. Production in July this year was 8 percent lower than in June, as compared with a 7 percent reduction last year and a 1934-38 average decline of slightly less than 7 percent.

MONTHLY MILK PRODUCTION ON FARMS, UNITED STATES  
1934-38 Average, 1939, and 1940

	MONTHLY TOTAL			DAILY AVERAGE PER CAPITA		
	1934-38	1939	1940	1934-38	1939	1940
	Million pounds			Pounds		
January	7,422	7,935	7,961	1,870	1,957	1,949
February	7,044	7,534	7,791	1,950	2,056	2,038
March	8,221	8,869	9,006	2,069	2,185	2,202
April	8,809	9,347	9,447	2,290	2,379	2,386
May	10,537	11,084	11,067	2,649	2,728	2,704
June	10,996	11,464	11,805	2,855	2,914	2,979
July	10,266	10,671	10,834	2,578	2,623	2,644
August	9,194	9,672		2,307	2,376	
September	8,262	8,533		2,141	2,165	
October	7,942	8,077		1,990	1,981	
November	7,227	7,556		1,870	1,914	
December	7,383	7,816		1,847	1,915	

Milk production per cow declined somewhat more rapidly than usual during July and on August 1 was about 1 percent below that a year ago. The decrease during July tended to be most pronounced in those States where the condition of pastures was most sharply influenced by the July heat wave. In the important group of milk-producing States in the eastern half of the Corn Belt, a drop of more than 20 points in pasture condition during July was accompanied by 3 to 4 percent more than the usual decline in production per cow. In the major butter-producing territory of the West North Central region, milk production per cow was likewise influenced by declining pastures.

The rapid decline in milk production in late July probably continued into early August, although in Iowa and parts of Minnesota where the drought was broken in late July the improvement in pastures was beginning to affect butter production by August 8. By mid-August a large part of the North Central area had had enough rain to improve pastures, but drought conditions persisted in Indiana and portions of adjoining States and more rain was wanted in much of the Northeast and from central South Dakota and Nebraska westward.

As compared with the 10-year average for August 1, production per cow was reported relatively high in all major groups of States, ranging from 3 percent above average in the South Central group to 9 percent above in the Western group. Production per cow, however, was somewhat below a year ago in all regions except the North Atlantic where it averaged 7 percent above and the highest for the date in the 16 years of record.

For the country as a whole milk production per cow in herds kept by crop correspondents on August 1 averaged 14.98 pounds, compared with 15.10 pounds on that date last year and the 1929-38 average of 14.19 pounds for August 1. In these herds 76.3 percent of the milk cows were reported being milked on August 1 compared with 76.7 percent on that date a year ago and a range from 72.0 to 77.2 percent for the date in the fourteen preceding years for which records are available.



The condition of dairy pastures declined sharply during July, especially in mid-western sections where weather in the last half of the month was hot and dry. For the United States as a whole, the condition of dairy pastures on August 1 average 73.5 percent of normal, which was 5 points higher than a year ago and 8 points above the 1929-38 average for the same date, but considerably short of the average August 1 condition of 80.2 percent in the 1920-29 period prior to recent droughts.

Dairy Pastures: Condition as percent of "normal",  
August 1, by major groups of States, 1920-40

	East	West	South	South	Western	United
	North	North	North	South	Central	States
	Atlantic	Central	Central	Atlantic	Central	States
Year	States	States	States	States	States	States
	Percent	Percent	Percent	Percent	Percent	Percent
Av. 1920-29	83.1	78.7	79.5	81.5	80.0	80.2
Av. 1930-34	68.0	55.0	50.8	66.9	59.4	58.3
1935	89.0	88.9	81.0	82.5	76.8	83.6
1936	53.3	28.2	21.8	54.1	54.8	40.9
1937	86.0	77.6	68.3	82.8	71.3	76.1
1938	86.4	88.3	79.5	89.5	84.4	84.3
1939	52.7	74.3	67.4	81.7	75.2	68.7
1940	87.6	75.0	59.3	80.6	77.3	73.5

Grain and concentrates fed to milk cows on August 1 this year averaged about 3 pounds per head in herds kept by dairy reporters, somewhat less than on that date in 1936 when drought had seriously depleted pasture feed but otherwise the highest for August 1 in the current decade. As shown by the table below, liberal feeding for this time of year was reported from all major groups of states, even from areas where pastures were unusually good.

Grain and Concentrates fed per milk cow per day on August 1  
in herds kept by dairy correspondents

	East	West	South	South	Western	United
	North	North	North	South	Central	States
	Atlantic	Central	Central	Atlantic	Central	States
Date	States	States	States	States	States	States
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
August 1						
1931	3.4	2.4	2.0	2.7	2.4	2.38
1932	3.1	2.4	1.7	2.8	2.2	2.24
1933	3.3	2.5	2.1	3.4	2.8	2.55
1934	3.6	2.3	1.7	2.9	2.4	2.34
1935	3.3	1.5	.8	3.6	2.5	1.96
1936	4.3	3.3	2.3	3.6	3.0	3.02
1937	3.4	2.0	1.3	3.9	2.8	2.33
1938	3.6	2.6	2.1	3.7	3.2	2.75
1939	4.1	2.7	2.0	4.0	2.8	2.80
1940	3.9	2.8	2.3	4.3	3.0	2.98

Feed and grain prices have fluctuated sharply and with foreign markets disturbed by the war, some unusual price relations persist on wholesale markets. Linseed meal has recently been cheaper at Philadelphia than in any of the previous 20 years. In early August cottonseed meal was lower at Philadelphia and San Francisco than at Atlanta. Soybean meal has been cheaper at Chicago than cottonseed meal at Memphis. Principal markets report oats and barley are bringing about the same price as a year ago, but corn is about 40 percent higher. Such unusual prices cause abnormal regional differences in feed costs and may explain some of the regional variations in milk production, particularly the high level of production in some coastal areas where feed prices are most affected by the cost of imported supplies.



Estimates of the number of milk cows on farms are the foundation of statistics on milk production and utilization. They indicate changes in producing capacity and show the areas where farmers are preparing to increase or decrease milk production. They also appear to have some indirect relation to dairy practices, to rates of feeding and even to prosperity in dairy sections, for the larger the number of milk cows per capita in the United States the less have dairymen felt the benefit of those favorable price relationships which cause liberal feeding and heavy production per cow.

The principal current reports on numbers of milk cows are: (1) The annual inventory estimates, which technically, are of "cows and heifers 2 years old or over, kept for milk, on farms January 1", (2) the midyear report of changes shown by the June livestock surveys of "milk cows" and (3) the estimates which are used in computing annual milk production, technically the "average number of milk cows on farms during each year", as computed from estimates of the numbers (excluding heifers) at the beginning and end of each calendar year and the seasonal trend of numbers in each State.

#### NUMBER OF MILK COWS JUNE 1940

In June 1940 the number of milk cows on farms in the United States was shown by the livestock survey to be 1 percent above the number in June 1939. The increase was almost the same as in the last two calendar years. Changes in individual States reflect local differences in hay supplies, prices and other temporary factors but in most States they follow rather closely the trends during the last year or two, except that increases average slightly larger in northern and central States and more decreases are reported in the Gulf States and parts of the West.

The lower numbers shown in the South may be due in part to the severe winter which increased death losses, feed requirements and local feed prices. Local prices of cattle and calves, however, have been high compared to butterfat, the percentage of the cows reported milked was the lowest in 10 years, and some of the cows formerly milked may now be used only for beef production. Either similar shifts in classification or closer culling probably occurred in some other areas for the large number of heifers coming into production this year would ordinarily cause milking herds to increase a little more rapidly.

#### HEIFER CALVES BEING RAISED

The number of heifer calves reported on the June survey as being saved for milk cows was 22.1 percent of the number of milk cows, slightly below the 22.5 reported last year but the second highest since 1930. Excluding the drought year 1934 when the number fell to 18.5 percent, reports from 1931 through 1938 ranged from 20.5 to 21.9 percent. While the variations are small and June plans are often materially changed by subsequent conditions, this year's reports show a tendency, shared by all parts of the country except the Southwest, to save more than the usual proportion of heifers. This is to be expected when, as at present, the price of milk cows is high in comparison with the cost of raising a heifer, but until there is more evidence that removals from milking herds are also large the possibility of a too rapid increase in milk cows must be recognized.



## DAIRY PRODUCTION

Milk Produced per Milk Cow in :							
Herds Kept by Reporters 1/				Condition of Dairy Pastures 2/		Milk Cows on Farms	
: August 1 :				: August 1 :		: as Percent of	
State	: Av. 1929-38:	1939	: 1940	: Av. 1929-38:	1939	: 1940	: June 1939 4/
		Pounds			Percent		
Me.	15.1	15.8	17.2	82.0	72	89	100
N. H.	15.4	15.8	17.0	79.2	60	90	100
Vt.	14.5	14.5	17.1	83.6	76	93	101
Mass.	17.7	18.1	18.8	75.2	51	89	100
R. I.	3/	3/	3/	73.3	54	92	103
Conn.	17.6	18.9	18.5	76.0	48	90	100
N. Y.	17.4	16.6	18.4	70.6	45	91	101
N. J.	18.7	18.9	19.7	69.3	35	67	101
Pa.	17.1	17.3	18.0	69.6	57	83	101
N. Atl.	17.01	17.00	18.26	72.7	52.7	87.6	100.8
Ohio	16.2	17.6	16.7	66.1	84	79	101
Ind.	15.0	16.7	15.4	62.6	87	67	101.5
Ill.	14.5	16.2	15.5	63.5	87	61	101.5
Mich.	17.4	19.0	19.2	60.5	66	81	102
Wis.	17.2	17.7	18.1	63.4	64	79	101
E. N. Cent.	16.30	17.40	17.13	63.3	74.3	75.0	101.3
Minn.	15.1	15.9	15.3	60.0	73	62	101
Iowa	14.3	15.8	14.6	66.5	76	64	101.5
Mo.	10.9	12.1	12.3	56.8	80	62	101.5
N. Dak.	14.6	15.0	15.8	49.8	60	72	104
S. Dak.	12.5	13.0	12.9	46.2	55	53	104
Nebr.	13.9	14.9	14.3	57.5	47	39	104
Kans.	13.0	13.8	12.8	54.2	55	54	103
W. N. Cent.	13.59	14.48	14.13	58.2	67.4	59.3	102.4
Del.	3/	3/	3/	70.7	61	74	103
Md.	15.0	16.9	16.0	66.4	77	70	103
Va.	13.1	13.3	13.8	74.0	87	92	101
W. Va.	13.7	15.2	13.8	70.6	85	88	100
N. C.	12.7	13.9	13.7	76.2	84	77	102
S. C.	10.8	11.5	11.8	69.3	78	65	100
Ga.	9.3	10.7	10.3	72.5	79	82	99
Fla.	3/	3/	3/	80.0	86	84	97
S. Atl.	11.85	13.23	12.78	72.6	81.7	80.6	100.6
Ky.	13.0	14.5	13.6	68.8	87	78	100
Tenn.	11.8	12.7	11.9	71.3	85	81	103
Ala.	3/	3/	3/	73.9	85	85	98
Miss.	8.3	8.1	7.8	73.5	87	83	99
Ark.	9.6	10.0	9.7	63.5	79	78	101
La.	3/	3/	3/	74.0	82	83	101
Okla.	11.0	12.6	12.4	53.9	64	70	101
Tex.	9.9	10.4	10.1	65.9	60	74	98
S. Cent.	10.27	11.09	10.63	66.4	75.2	77.3	99.8
Mont.	15.3	18.7	18.2	58.0	78	76	100
Idaho	18.9	20.3	20.2	76.8	76	81	102
Wyo.	15.0	15.5	16.4	70.1	58	76	101
Colo.	14.8	15.7	16.4	64.5	45	61	99
N. Mex.	3/	3/	3/	66.5	60	59	102
Ariz.	3/	3/	3/	79.9	72	64	101
Utah	3/	3/	3/	70.4	58	61	99
Nev.	3/	3/	3/	79.8	78	88	99
Wash.	19.6	21.0	19.1	72.8	78	57	102
Oreg.	17.8	18.1	18.4	75.7	69	67	99
Calif.	18.3	19.0	20.0	73.0	64	85	99
West.	16.76	18.40	18.30	71.6	66.8	72.6	100.0
U. S.	14.19	15.10	14.98	65.5	68.7	73.5	101.1

- 1/ Averages represent the reported daily milk production of herds kept by reporters divided by the total number of milk cows (in milk or dry) in these herds. Figures for New England States are based on combined returns from crop and special dairy reporters and are weighted by counties. Figures for other States, regions, and U.S. are based on returns from Crop Reporters only.
- 2/ State averages are based on reports by crop correspondents. For regional and U.S. averages the States are combined in proportion to the importance of pastures to dairy production on August 1.
- 3/ State averages omitted because of instability, but reports are included in arriving at regional averages.
- 4/ Based on reports for about 160,000 herds collected largely through cooperation with the Rural Mail Carriers.